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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,702

02/19/2004

Chen-Hsien Liao

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10/25/2006

EXAMINER

DHARIA, PRABODH M

ARENT FOX PLLC

1050 CONNECTICUT AVENUE, N.W.

SUITE 400

WASHINGTON, DC 20036

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,702	<b>Applicant(s)</b> LIAO ET AL.	
	<b>Examiner</b> Prabodh M. Dharja	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09-08-04,01-10-05</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 09-08-2004 and 01-10-2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
2. **Status** Please all the replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on February 19, 2004 under amendments and new claims, which have been placed of record in the file. Claims 1-16 are pending in this action.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ditzik (US 5,966,108).

Regarding claim 1, Ditzik teaches a position encoded sensing device (Col. 4, lines 46-50) comprising: a display panel (Col. 8, Line 67); a light guiding layer disposed on the display panel,

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the light guiding layer (Col. 8, Lines 59-61, Col. 4, Lines 46-50) configured to have encoded information therein (Col. 7, Line 67 to Col. 8, Line 12, Col. 4, Lines 46-50); and a transceiver (Col. 4, Lines 46,47 where pen a has receiver or sensor and emitter which is transmitter) for detecting light (Col. 4, Lines 46-59 the sensor part of the encoding pen acts as receiver or sensor or detector) and the encoded information that are outputted from the light guiding layer (Col. 4, Lines 50-59).

Regarding claim 2, Ditzik teaches the light guiding layer (Col. 8, Lines 59-61, Col. 4, Lines 46-50) comprises: a light guiding plate (Col. 8, Lines 47-64, Col. 4, Lines 46-50); at least one light source disposed at one end of the light guiding plate (Col. 8, Lines 47-64); and a light guiding face disposed within the light guiding plate (Col. 8, Lines 47-64, Col. 4, Lines 46-50), wherein the light guiding face is configured to optimally guide the encoded information (Col. 8, Lines 47-64, Col. 4, Lines 46-59) and light from the at least one light source out of the light guiding plate (Col. 8, Lines 47-64, Col. 4, Lines 46-50).

Regarding claim 3, Ditzik teaches the light guiding face is configured to include the encoded information (Col. 8, Lines 47-64, Col. 4, Lines 46-59).

Regarding claim 4, Ditzik teaches the light guiding face includes at least one light guiding surface configured to optimally guide the encoded information and light from the at least one light source out of the light guiding plate (Col. 8, Lines 47-64, Col. 4, Lines 46-59).

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Regarding claim 5, Ditzik teaches the light guiding face includes at least one light guiding serrated surface (Col. 13, Lines 62-65, also see figure 9, Col.11, Lines 16-26, see figure 7B, Col. 9, Lines 42-47, Col. 10, Lines 1-6) configured to optimally guide the encoded information (Col. 8, Lines 47-64, Col. 4, Lines 46-59) and light from the at least one light source out of the light guiding plate (Col. 10, lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59).

Regarding claim 6, Ditzik teaches the light guiding face includes at least one light guiding inverse-V surface configured to optimally guide the encoded information and light from the at least one light source out of the light guiding plate (Col. 13, Lines 62-65, also see figure 9, Col.11, Lines 16-26, see figure 7B, Col. 9, Lines 42-47, Col. 10, Lines 1-6, Col. 5, Lines 40-46).

Regarding claim 7, Ditzik teaches the encoded information comprises at least one display position code information (Col. 1, Lines 25-27).

Regarding claim 8, Ditzik teaches the transceiver (Col. 4, lines 52-59, Lines 46,47) comprises a detector for detecting the light (Col. 4, Lines 46-59 the sensor part of the encoding pen acts as receiver or sensor or detector) and the encoded information that are outputted from the light guiding layer (Col. 8, Lines 47-64, Col. 4, Lines 46-59), and a filter for filtering the light (Col. 10, Lines 60-62)

Regarding claim 9, Ditzik teaches a method of sensing a position on a display (Col. 1, Lines 25-27), said method comprising the steps of: displaying information on a display panel

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(Col. 4, Lines 46-59); positioning a transceiver proximately to the display panel Col. 1, lines 25-27, Col. 8, lines 47-64); emitting light from at least one light source of a light guiding layer (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59); guiding the light with encoded information out of light guiding layer (Col. 10, lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59); detecting the light and the encoded information outputted from the light guiding layer at the transceiver (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59); and processing the encoded information detected by the transceiver (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

Regarding claim 10, Ditzik teaches the step of guiding the light comprises the step of: guiding the light with encoded information formed on a light guiding face of the light guiding layer (Col. 8, Lines 47-64, Col. 4, Lines 46-59).

Regarding claim 11, Ditzik teaches the step of guiding the light comprises the step of: guiding the light with display position code information formed on a light guiding face of the light guiding layer (Col. 8, Lines 47-64, Col. 4, Lines 46-59).

Regarding claim 12, Ditzik teaches the step of processing comprises the step of: determining a position of the transceiver with respect to the display panel based on the detected encoded information (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

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Regarding claim 13, Ditzik teaches a system for sensing a position on a display (Col. 1, Lines 25-30) comprising: a display means for displaying information on a display panel (Col. 3, lines 18-22); a positioning means for positioning (Col. 1, Lines 25-30) a transceiver proximately to the display panel (Col. 8, Lines 47-64, Col. 4, Lines 46-59); an emitting means for emitting light from at least one light source of a light guiding layer (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22); a light guiding means for guiding the light with encoded information out of light guiding layer (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22); a detecting means for detecting the light and the encoded information guided out of the light guiding layer at the transceiver (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22); and a processing means for processing the encoded information detected by the transceiver (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

Regarding claim 14, Ditzik teaches the light guiding means guides the light with encoded information that are formed on a light guiding face of the light guiding layer (Col. 1, Lines 25-30, Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

Regarding claim 15, Ditzik teaches the light guiding means guides the light with display position code information formed on a light guiding face of the light guiding layer (Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

Regarding claim 16, Ditzik teaches the processing means comprises: a determining means for determining a position of the transceiver with respect to the display panel based on the detected encoded information (Col. 1, Lines 25-27, Col. 10, Lines 40-52, Col. 8, Lines 47-64, Col. 4, Lines 46-59, Col. 3, Lines 18-22).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tseng et al. (US 2005/0162401 A1) Position encoded sensing device with amplified light reflection intensity and method of manufacturing..

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

7. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished



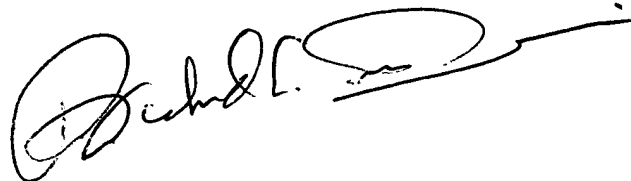
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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

A handwritten signature in black ink, appearing to read "Prabodh Dharia", with a long horizontal flourish extending to the right.

Prabodh Dharia

Partial Signatory Authority Program

AU 2629

October 21, 2006